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 \*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 07:06:44 ON 16 JUN 2009

=> file reg

=>Uploading C:\Program Files\Stnexp\Queries\Queries\10743563\_06162009\_RCE.str



chain nodes :

11 12 13 14 15 16 17 18 19 20 21 22 24 25 27 29

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

9-12 10-11 12-13 12-14 14-15 14-16 16-17 16-27 17-18 17-20 18-19 18-25

20-21 21-22 21-24 25-29

ring bonds :

1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 9-12 10-11 12-13 12-14

14-15 14-16 16-17 16-27 17-18 17-20 18-19 18-25 20-21 21-22 21-24 25-29

G1:O,N

G2:O,X

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

19:CLASS 20:CLASS 21:CLASS 22:CLASS 24:CLASS 25:CLASS 27:CLASS 29:CLASS

=> s l1 sam

L2 4 SEA SSS SAM L1

=> s l1 full

L3 88 SEA SSS FUL L1

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=> s l3

L4 9 L3

=> s l4 and pd< dec 2002

22915161 PD< DEC 2002

(PD<20021200)

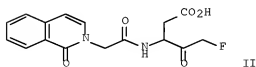
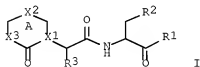
L5 3 L4 AND PD< DEC 2002

=> dis l5 1-3 bib abs hitstr

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2003:991174 CAPLUS Full-text  
 DN 140:28050  
 TI Synthesis of peptide heterocyclic derivatives as caspase inhibitors  
 IN Golec, Julian M. C.; Charifson, Paul S.; Charrier, Jean-Damien; Binch, Hayley  
 PA UK  
 SO U.S. Pat. Appl. Publ., 28 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20030232846	A1	20031218	US 2002-166437	20020610
	US 7517987	B2	20090414		
	WO 2001042216	A2	20010614	WO 2000-US33260	20001208 <--
	WO 2001042216	A3	20020228		
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	CN 101348455	A	20090121	CN 2008-10144399	20001208
	AU 2006225317	A1	20061102	AU 2006-225317	20061010
	JP 2008101019	A	20080501	JP 2007-315252	20071205
	US 20090131456	A1	20090521	US 2009-359749	20090126
PRAI	US 1999-169812P	P	19991208		
	WO 2000-US33260	A1	20001208		
	AU 2001-24283	A3	20001208		
	CN 2000-818255	A3	20001208		
	JP 2001-543517	A3	20001208		
	NZ 2000-519424	A1	20001208		
	US 2002-166437	A3	20020610		
OS	MARPAT 140:28050				
GI					



AB Compds. I and their synthesis are claimed [R1 = H, CN, CHN2, (substituted)alkyl, aryl, non-aromatic heterocycle, etc.; R2 = CH2COOH, CO2H]

(or ester/amide/isosteres of); R3 = H or alkyl; X1, X3 = N or C; X2 = bond, O, S, N or C wherein any X with suitable valence may bear a substituent; each C in ring A may also be substituted; ring A substituents = H, halo, alkyl, aryl, OH, CN, etc.; A may also bear a fused ring]. Over 20 synthetic examples are given. Thus, substitution of bromoacetic acid Et ester with the corresponding isoquinolone followed by saponification and coupling to 3-amino-5-fluoro-4-hydroxypentanoic acid tert-Bu ester provided the hydroxy ester intermediate. Oxidation of the hydroxy ester followed by treatment with TFA yielded II as a white powder. Comps. of the invention are caspase inhibitors; data is provided for caspase-1, -3, -7 and caspase-8 inhibition (Ki). Also determined was inhibition of IL-1 $\beta$  secretion from peripheral blood mononuclear cells and activity in a Fas ligand induced apoptosis assay. Compound II had Ki (M-1 s-1) of 248,000 for caspase-1, 130,000 for caspase-3 and an IC50 of 2.9  $\mu$ M for IL-1 $\beta$  secretion. Comps. I may be used as a component of immunotherapy for the treatment of cancer.

IT 344461-03-6P 344461-10-5P

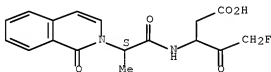
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of peptide heterocyclic derivs. as caspase inhibitors)

RN 344461-03-6 CAPLUS

CN Pentanoic acid, 5-fluoro-4-oxo-3-[[[(2S)-1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]- (CA INDEX NAME)

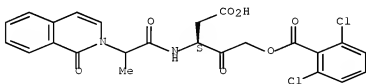
Absolute stereochemistry.



RN 344461-10-5 CAPLUS

CN Benzoic acid, 2,6-dichloro-, (3S)-4-carboxy-2-oxo-3-[[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]butyl ester (CA INDEX NAME)

Absolute stereochemistry.



IT 344461-29-6P 344461-30-9P

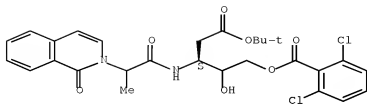
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of peptide heterocyclic derivs. as caspase inhibitors)

RN 344461-29-6 CAPLUS

CN D-glycero-Pentonic acid, 2,3-dideoxy-3-[[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]-, 1,1-dimethylethyl ester, 5-(2,6-dichlorobenzoate), (4S)- (9CI) (CA INDEX NAME)

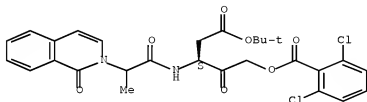
Absolute stereochemistry.



RN 344461-30-9 CAPLUS

CN Benzoic acid, 2,6-dichloro-, (3S)-5-(1,1-dimethylethoxy)-2,5-dioxo-3-[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]pentyl ester (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on SIN

AN 2001:435047 CAPLUS [Full-text](#)

DN 135:46192

TI Synthesis and use of heterocyclic substituted-amido halopentanoate derivatives as caspase inhibitors

IN Golec, Julian; Charifson, Paul; Charrier, Jean-Damien; Binch, Hayley

PA Vertex Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

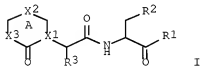
LA English

FAN.CNT 2

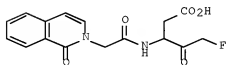
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
TW	275586	B	20070311	TW 2000-89126098	20001207
CA	2393710	A1	20010614	CA 2000-2393710	20001208 <--
BR	2000016282	A	20020827	BR 2000-16282	20001208 <--

## 10/743,563 (RCE\_06/15/2009)

EP 1244626	A2	20021002	EP 2000-988026	20001208 <--
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CN 1420872	A	20030528	CN 2000-818255	20001208
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ZA 2002004390	A	20030602	ZA 2002-4390	20020531
NO 2002002656	A	20020806	NO 2002-2656	20020605 <--
NO 324776	B1	20071210		
IN 2002KN00759	A	20050311	IN 2002-KN759	20020605
US 20030232846	A1	20031218	US 2002-166437	20020610
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IN 2007KN03778	A	20080307	IN 2007-KN3778	20071005
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US 20090131456	A1	20090521	US 2009-359749	20090126
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IN 2002-759	A3	20020605		
KR 2002-707337	A3	20020608		
US 2002-166437	A3	20020610		
KR 2008-703852	A3	20080218		
OS MARPAT 135:46192				
GI				



I



II

AB Compds. I and their synthesis are claimed [wherein; R1 = H, CN, CHN2, (substituted)alkyl, aryl, non-aromatic heterocycle, etc.; R2 = CH2COOH, COOH (or ester/amide/isosteres of); R3 = H or alkyl; X1, X3 = N or C; X2 = bond, O,

S, N or C wherein any X with suitable valence may bear a substituent; each C in ring A may also be substituted; ring A substituents = H, halo, alkyl, aryl, OH, CN, etc.; A may also bear a fused ring]. Over 20 synthetic examples are given. For instance; substitution of bromoacetic acid Et ester with the corresponding isoquinolone followed by saponification and coupling to 3-amino-5-fluoro-4-hydroxypentanoic acid tert-Bu ester provided the hydroxy ester intermediate. Oxidation of the hydroxy ester followed by treatment with TFA yielded II as a white powder. Compds. of the invention are caspase inhibitors; data is provided for caspase-1, -3, -7 and caspase-8 inhibition ( $K_i$ ). Also determined was inhibition of IL-1 $\beta$  secretion from peripheral blood mononuclear cells and activity in a Fas ligand induced apoptosis assay. Compound II had  $K_i$  (M-1 s-1) of 248,000 for caspase-1, 130,000 for caspase-3 and an IC50 of 2.9  $\mu$ M for IL-1 $\beta$  secretion. Compds. I may be used as a component of immunotherapy for the treatment of cancer.

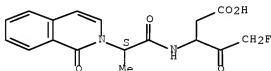
IT 344461-03-6P 344461-10-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synthesis and use of heterocyclic substituted-amido halopentanoate derivs. as caspase inhibitors)

RN 344461-03-6 CAPLUS

CN Pentanoic acid, 5-fluoro-4-oxo-3-[[[(2S)-1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]- (CA INDEX NAME)

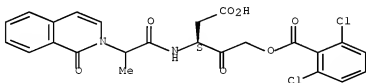
Absolute stereochemistry.



RN 344461-10-5 CAPLUS

CN Benzoic acid, 2,6-dichloro-, (3S)-4-carboxy-2-oxo-3-[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]butyl ester (CA INDEX NAME)

Absolute stereochemistry.



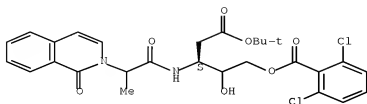
IT 344461-29-6P 344461-30-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and use of heterocyclic substituted-amido halopentanoate derivs. as caspase inhibitors)

RN 344461-29-6 CAPLUS

CN D-glycero-Pentonic acid, 2,3-dideoxy-3-[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]-, 1,1-dimethylethyl ester, 5-(2,6-dichlorobenzoate), (4 $\xi$ )- (9CI) (CA INDEX NAME)

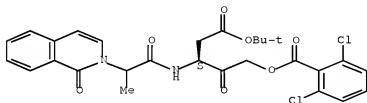
Absolute stereochemistry.



RN 344461-30-9 CAPLUS

CN Benzoic acid, 2,6-dichloro-, (3S)-5-(1,1-dimethylethoxy)-2,5-dioxo-3-[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propylamino]pentyl ester (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on SIN

AN 1998:251152 CAPLUS [Full-text](#)

DN 128:321926

OREF 128:63825a,63828a

TI Preparation of aspartate ester inhibitors of interleukin-1 $\beta$   
converting enzyme

IN Albrecht, Hans P.; Allen, Hamish John; Brady, Kenneth Dale; Caprathe, Bradley William; Gilmore, John Lodge; Harter, William Glen; Hays, Sheryl Jeanne; Kostlan, Catherine Rose; Lunney, Elizabeth Ann; Para, Kimberly Suzanne; et al.

PA Warner-Lambert Company, USA

SO PCT Int. Appl., 179 pp.

CODEN: PIXXD2

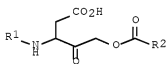
DT Patent

LA English

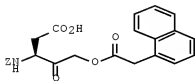
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WO 9816502	A1	19980423	WO 1997-US18514	19971009 <--
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RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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AU 9749023	A	19980511	AU 1997-49023	19971009 <--

AU 738341	B2	20010913		
EP 932598	A1	19990804	EP 1997-911715	19971009 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO				
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JP 2001506974	T	20010529	JP 1998-518519	19971009 <--
NO 9901677	A	19990609	NO 1999-1677	19990409 <--
KR 2000049048	A	20000725	KR 1999-703117	19990410 <--
PRAI US 1996-28322P	P	19961011		
WO 1997-US18514	W	19971009		
OS MARPAT 128:321926				
GI				



I



II

AB The present invention relates to compds. I [R1 = carboxy, acyl, amino acid residue, etc.; R2 = (CR2)n-X-R3; each R = independently H, C1-6 alkyl, OH; R3 = (un)substituted aryl, (un)substituted heteroaryl, (un)substituted heterocyclyl, cycloalkyl, etc; X = bond, O, S; n = 0-3; and the pharmaceutically acceptable salts, esters, amides, and prodrugs thereof] as inhibitors of interleukin-1 $\beta$  converting enzyme (ICE). This invention also relates to a method of treatment of stroke, inflammatory diseases, reperfusion injury, Alzheimer's disease, and shigellosis, and to a pharmaceutically acceptable composition that contains a compound that is an inhibitor of interleukin-1 $\beta$  converting enzyme. Thus, substitution of Z-Asp(OCMe3)-CH2Br (Z = PhCH2O2C) with 1-naphthylacetic acid, followed by acidic deprotection, gave desired aspartate ester derivative II. II inhibited ICE with Ki = 0.460  $\mu$ M and IC50 = 3.100  $\mu$ M, and inhibited Ich-2 (caspase-4) with IC50 = 3.60  $\mu$ M, as determined using in vitro assays. Related prepared compds. I (196 examples) were also tested for ICE inhibition (Ki values of 0.00008 to 76  $\mu$ M and IC50 values of 0.0013 to 32  $\mu$ M), and Ich-2 inhibition (IC50 = 0.021 to 76  $\mu$ M).

IT 206863-96-9P 206863-97-0P 206864-00-8P  
206864-01-9P

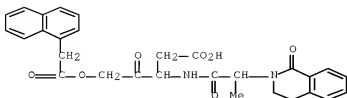
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aspartate ester inhibitors of interleukin-1 $\beta$  converting enzyme)

RN 206863-96-9 CAPLUS

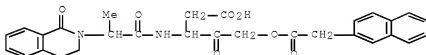
CN 1-Naphthaleneacetic acid, 4-carboxy-3-[(2-(3,4-dihydro-1-oxo-2(1H)-isoquinolinyl)-1-oxopropyl)amino]-2-oxobutyl ester (CA INDEX NAME)



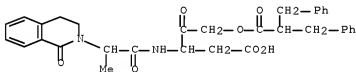


RN 206863-97-0 CAPLUS

CN 2-Naphthaleneacetic acid, 4-carboxy-3-[(2-(3,4-dihydro-1-oxo-2(1H)-isoquinolinyl)-1-oxopropyl)amino]-2-oxobutyl ester (CA INDEX NAME)

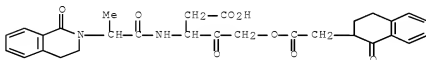


RN 206864-00-8 CAPLUS

CN Benzenepropanoic acid,  $\alpha$ -(phenylmethyl)-, 4-carboxy-3-[(2-(3,4-dihydro-1-oxo-2(1H)-isoquinolinyl)-1-oxopropyl)amino]-2-oxobutyl ester (CA INDEX NAME)

RN 206864-01-9 CAPLUS

CN 2-Naphthaleneacetic acid, 1,2,3,4-tetrahydro-1-oxo-, 4-carboxy-3-[(2-(3,4-dihydro-1-oxo-2(1H)-isoquinolinyl)-1-oxopropyl)amino]-2-oxobutyl ester (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

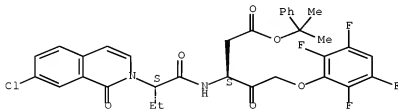
=&gt; s l4 not l5

L6 6 L4 NOT L5

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L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 2007:593290 CAPLUS [Full-text](#)  
 DN 147:202903  
 TI Exploring Peptide-likeness of Active Molecules Using 2D Fingerprint  
 Methods  
 AU Eckert, Hanna; Bajorath, Juergen  
 CS Department of Life Science Informatics, Rheinische  
 Friedrich-Wilhelms-Universitaet, Bonn, D-53113, Germany  
 SO Journal of Chemical Information and Modeling (2007), 47(4), 1366-1378  
 CODEN: JCISD8; ISSN: 1549-9596  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB Similarity searching for peptide-like small mols. is a difficult task because  
 the amide backbone shared by these mols. tends to mask features that determine  
 biol. activity. The authors have investigated 2D fingerprints for their  
 ability to differentiate between peptide-like mols. having different activity  
 or to facilitate a peptidomimetic transition from mols. with strong peptide  
 character to compds. having little or none. For these purposes, different  
 compound activity classes were assembled consisting of mols. having strong,  
 moderate, and weak peptide character. For the quantification of peptide  
 character, a "peptide flavor" index was introduced. In systematic search  
 calcons., an encouraging finding has been that most of the investigated 2D  
 fingerprints were capable of distinguishing between peptide-like mols. having  
 different activities. However, only two fingerprints of different design also  
 displayed a strong tendency to detect mols. with decreasing peptide character.  
 One of these search tools is a recently introduced property descriptor-based  
 fingerprint that showed two addnl. advantages: its flexible design could be  
 adjusted to increasingly recover mols. with little peptide-likeness, and in  
 addition, its search performance was not affected by differences in mol. size.  
 IT 721398-07-8  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
 BIOL (Biological study)  
 (exploring peptide-likeness of active mols. using 2D fingerprint  
 methods)  
 RN 721398-07-8 CAPLUS  
 CN Pentanoic acid, 3-[[[(2S)-2-(7-chloro-1-oxo-2(1H)-isoquinolinyl)-1-  
 oxobutyl]amino]-4-oxo-5-(2,3,5,6-tetrafluorophenoxy)-,  
 1-methyl-1-phenylethyl ester, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



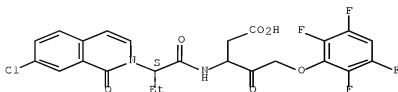
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 2007:150976 CAPLUS [Full-text](#)  
 DN 146:235880  
 TI Preparation of caspase inhibitor prodrugs

IN Durrant, Steven; Charrier, Jean-Damien; Studley, John  
 PA Vertex Pharmaceuticals Incorporated, USA  
 SO PCT Int. Appl., 49pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007015931	A2	20070208	WO 2006-US28174	20060720
	WO 2007015931	A3	20070607		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
	AU 2006276096	A1	20070208	AU 2006-276096	20060720
	CA 2616337	A1	20070208	CA 2006-2616337	20060720
	US 20070155718	A1	20070705	US 2006-489939	20060720
	EP 1910379	A2	20080416	EP 2006-787963	20060720
	R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
	JP 2009502922	T	20090129	JP 2008-523976	20060720
	MX 2008001360	A	20080815	MX 2008-1360	20080128
	IN 2008KN00648	A	20081114	IN 2008-KN648	20080213
	KR 2008038369	A	20080506	KR 2008-704718	20080227
	NO 2008001050	A	20080428	NO 2008-1050	20080228
	CN 101268084	A	20080917	CN 2006-80034509	20080319
PRAI	US 2005-703375P	P	20050728		
	WO 2006-US28174	W	20060720		
OS	MARPAT 146:235880				
AB	This invention relates to prodrugs of caspase inhibitors comprising of a furo [3,2-d]oxazolin-5-one moiety which, under specific conditions, can convert into biol. active compds., particularly caspase inhibitors. This invention also relates to the processes for preparing these prodrugs of caspase inhibitors. This invention further relates to pharmaceutical compns. comprising said prodrugs and to the use thereof for the treatment of diseases related to inflammatory or degenerative conditions. Trifluoroacetic anhydride was added to a solution of (S)-carbazole-9-carboxylic acid 1-(1-carboxymethyl-3-fluoro-2-oxo-propylcarbamoyl)-2-methyl-Pr ester in anhydrous dichloromethane under a nitrogen atmosphere at ambient temperature. After one hour, the reaction was diluted with anhydrous dichloromethane and tris-(2-aminoethyl)amine polystyrene resin was added and the reaction was stirred for a further one hour. The resin was removed by filtration and the filtrate concentrated in vacuo and triturated with dichloromethane and petroleum ether to give (S)-carbazole-9-carboxylic acid 1-(3a-fluoromethyl-5-oxo-3a,5,6,6a-tetrahydro-furo[3,2-d]oxazol-2-yl)-2-methyl-propylester as a white solid.				
IT	618460-08-5				
	RL: RCT (Reactant); RACT (Reactant or reagent)				
	(preparation of caspase inhibitor prodrugs)				
RN	618460-08-5 CAPLUS				
CN	Pentanoic acid, 3-[[[(2S)-2-(7-chloro-1-oxo-2(1H)-isoquinolinyl)-1-oxobutyl]amino]-4-oxo-5-(2,3,5,6-tetrafluorophenoxy)]-			(CA INDEX NAME)	

Absolute stereochemistry.

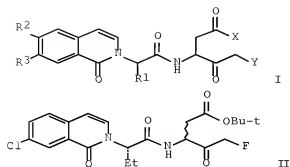


L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 2004:565214 CAPLUS [Full-text](#)  
 DN 141:106388  
 TI Preparation of 4-oxo-3-(1-oxo-1H-isoquinolin-2-ylacetyl)amino-pentanoic acid ester and amide derivatives as caspase inhibitors  
 IN Charrier, Jean-Damien; Mortimore, Michael; Studley, John R.  
 PA Vertex Pharmaceuticals Incorporated, USA  
 SO PCT Int. Appl., 104 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

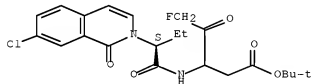
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004058718	A1	20040715	WO 2003-US40870	20031222
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2511235	A1	20040715	CA 2003-2511235	20031222
	AU 2003303345	A1	20040722	AU 2003-303345	20031222
	US 20040192612	A1	20040930	US 2003-743563	20031222
	EP 1581501	A1	20051005	EP 2003-814289	20031222
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	CN 1745065	A	20060308	CN 2003-80109285	20031222
	CN 100366612	C	20080206		
	JP 2006513220	T	20060420	JP 2004-563916	20031222
	HK 1087701	A1	20090102	HK 2006-107876	20060714
	JP 2007070368	A	20070322	JP 2006-343613	20061220
PRAI	US 2002-435133P	P	20021220		
	JP 2004-563916	A3	20031222		
	WO 2003-US40870	W	20031222		
OS	MARPAT 141:106388				
GI					



- AB The title compds. of formula I [X = alkoxy, (substituted) NH<sub>2</sub>, etc.; Y = halo, trifluorophenoxy, tetrafluorophenoxy; R<sub>1</sub> = alkyl; R<sub>2</sub>, R<sub>3</sub> = H, halo, OCF<sub>3</sub>, CN, CF<sub>3</sub>] are prepared. The present invention also provides pharmaceutical compns. and methods using such compns. for treating a caspase-mediated disease, particularly in the central nervous system. Thus, II was prepared from 7-chloroisoquinolin-1-one (preparation given), (S)-2-aminobutyric acid tert-Bu ester and 3-amino-5-fluoro-4-hydroxypentanoic acid tert-Bu ester.
- IT 640286-59-5P  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of (oxoisoquinolinylacetyl)amino)-oxopentanoic acid ester and amide derivs. as caspase inhibitors)
- RN 640286-59-5 CAPLUS
- CN Pentanoic acid, 3-[[[(2S)-2-(7-chloro-1-oxo-2(1H)-isoquinolinyl)-1-oxobutyl]amino]-5-fluoro-4-oxo-, 1,1-dimethylethyl ester (CA INDEX NAME)

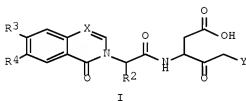
Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 AN 2004:20662 CAPLUS [Full-text](#)  
 DN 140:77410  
 TI Preparation of isoquinolinone and quinazolinone peptide derivatives as caspase inhibitors  
 IN Knegetel, Ronald; Mortimore, Michael; Studley, John; Millan, David  
 PA Vertex Pharmaceuticals Incorporated, USA  
 SO PCT Int. Appl., 95 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1  
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 2004002961	A1	20040108	WO 2003-US20557	20030627
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2493646	A1	20040108	CA 2003-2493646	20030627
	AU 2003248758	A1	20040119	AU 2003-248758	20030627
	US 20040072850	A1	20040415	US 2003-609147	20030627
	BR 2003012232	A	20050510	BR 2003-12232	20030627
	EP 1539701	A1	20050615	EP 2003-762231	20030627
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1675184	A	20050928	CN 2003-818793	20030627
	JP 2005533825	T	20051110	JP 2004-518103	20030627
	NZ 537807	A	20070531	NZ 2003-537807	20030627
	MX 2005000069	A	20050411	MX 2005-69	20050103
	IN 2005KN00083	A	20050916	IN 2005-KN83	20050124
	ZA 2005000776	A	20060927	ZA 2005-776	20050126
PRAI	US 2002-392592P	P	20020628		
	US 2002-435073P	P	20021220		
	WO 2003-US20557	W	20030627		
OS	MARPAT 140:77410				
GI					



AB The invention relates to isoquinolinones and quinazolinones I [X is CH or N; Y is halo, tri- or tetrafluorophenoxy; R2 is alkyl; R3 is H, halo, OCF3, CN, or CF3; R4 is groups R3 or alkylthio, (un)substituted Ph, phenoxy, or phenylthio; with the proviso that when Y is halo, then R3 and R4 are not both H] which are caspase inhibitors useful in compns. for the treatment of various diseases, conditions, or disorders. Thus, I (X = CH, Y = F, R2 = Et, R3 = H, R4 = Cl), prepared by coupling of (S)-2-(7-chloro-1-oxo-1H-isoquinolin-2-yl)butyric acid (preparation given) with 3-amino-5-fluoro-4-hydroxypentanoic acid tert-Bu ester, had Ki (M-1 s-1) > 500,000 for inhibition of caspase-1 or caspase-3, Ki 100,000-500,000 for inhibition of caspase-8, and IC50 < 1 μM for inhibition of interleukin-1β secretion.

IT 518459-84-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

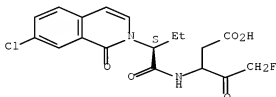
(preparation of isoquinolinone and quinazolinone peptide derivs. as caspase

inhibitors)

RN 618459-84-0 CAPLUS

CN Pentanoic acid, 3-[[[(2S)-2-(7-chloro-1-oxo-2(1H)-isoquinolinyl)-1-oxobutyl]amino]-5-fluoro-4-oxo- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2003:855766 CAPLUS [Full-text](#)

DN 139:345913

TI Identification of tumor necrosis factor  $\alpha$  (TNF- $\alpha$ ) modulator  
compounds, and use for treatment of TNF-mediated diseases

IN Miller, Karen; Diu-Hercend, Anita; Hercend, Thierry; Lang, Paul; Weber,  
Peter; Golec, Julian; Mortimore, Michael

PA Vertex Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 268 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003088917	A2	20031030	WO 2003-US12262	20030417
WO 2003088917	A3	20040304		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003225088	A1	20031103	AU 2003-225088	20030417
US 20040048797	A1	20040311	US 2003-419327	20030417
EP 1499898	A2	20050126	EP 2003-721795	20030417
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI US 2002-374434P	P	20020419		
WO 2003-US12262	W	20030417		

AB The invention discloses methods for identifying compds. useful for regulating TNF- $\alpha$  levels and/or activity. The invention also discloses methods for decreasing TNF- $\alpha$  levels and/or activity. Compds. and compns. of the invention are useful for treating TNF-mediated diseases. The invention further discloses kits comprising the compds. and compns. herein and a tool for

measuring TNF- $\alpha$  activity and/or levels. Preparation of selected compds., e.g. [3S/R, (2S)]-5-fluoro-4-oxo-3-[(1-(phenothiazine-10-carbonyl)piperidine-2-carbonyl)amino]pentanoic acid, is described.

IT 344461-03-6

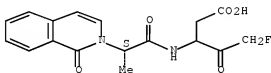
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(TNF- $\alpha$  modulator compound identification methods, and use for treatment of TNF-mediated diseases)

RN 344461-03-6 CAPLUS

CN Pentanoic acid, 5-fluoro-4-oxo-3-[[ (2S)-1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on SIN

AN 2003:656594 CAPLUS [Full-text](#)

DN 139:191460

TI Phospholipids as caspase inhibitor prodrugs

IN Mortimore, Michael; Golec, Julian M. C.

PA Vertex Pharmaceuticals Incorporated, USA

SO PCT Int. Appl., 256 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003068242	A1	20030821	WO 2003-US4457	20030211
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003211052	A1	20030904	AU 2003-211052	20030211
	US 20040019017	A1	20040129	US 2003-366192	20030211
	US 7410956	B2	20080812		
	EP 1485107	A1	20041215	EP 2003-739810	20030211
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	US 20080199454	A1	20080821	US 2007-5068	20071221
PRAI	US 2002-355889P	P	20020211		
	US 2003-366192	A3	20030211		
	WO 2003-US4457	W	20030211		



OS MARPAT 139:191460

AB The invention relates to compds. which are prodrugs of caspase inhibitors and pharmaceutically acceptable salts thereof. The invention further relates to the release of caspase inhibitors from these compds. through selective bond cleavage. The invention further relates to pharmaceutical compns. comprising these compds., which are particularly well-suited for treatment of caspase-mediated diseases, including inflammatory and degenerative diseases. The invention further relates to methods for preparing compds. of this invention.

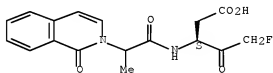
IT 582317-55-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(phospholipids as caspase inhibitor prodrugs)

RN 582317-55-3 CAPLUS

CN Pentanoic acid, 5-fluoro-4-oxo-3-[[1-oxo-2-(1-oxo-2(1H)-isoquinolinyl)propyl]amino]-, (3S)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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